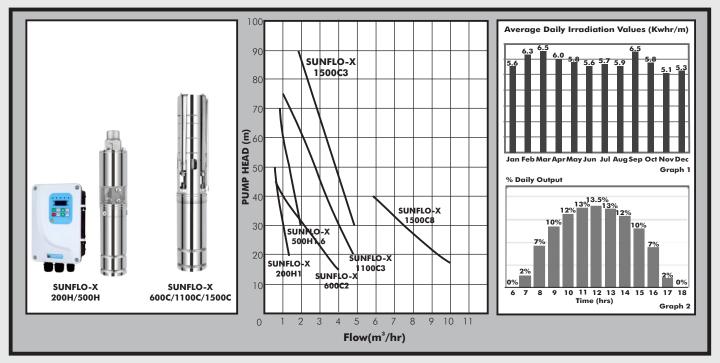




# SUNFL\*\*-X

## DC Solar Submersible Pump



#### PUMP

DAYLIFF SUNFLO-X Range of pumps are high specification solar powered centrifugal and helical rotor DC pumps specifically designed for wells/borehole applications and feature a remote surface mounted controller. Pumps are constructed principally from AISI 304 stainless steel and are engineered to the highest standards to give serviceability, excellent efficiency, high reliability and long life.

#### **MOTOR**

Pumps are fitted with Permanent Magnet brushless high efficiency, maintenance free DC motors without integrated electronics specifically designed for maximum efficiency. They should be powered by solar arrays configured to provide the input voltage required and sized at approximately 130% of the rated motor power.

Insulation Class: F Enclosure Class: IP68 Speed: 4000rpm

#### CONTROLLER

Pumps are provided with matched controllers for monitoring, protecting and controlling pump operations with the following features:-

- Protection against reverse polarity, overload and over temperature.
- Integrated MPPT (Maximum Power Point Tracking) with 99% energy conversion efficiency to maximize module power output.
- Fully automatic operation and complete protection including low level control, dry running and over/under voltage.
- Enhanced pump start on low sun intensity.
- Easy trouble shooting, where fault code is displayed on LCD screen for fast identification and problem solving.
- Enclosure Class: IP52

### **PUMP OUTPUTS**

Performance curves are given at standard test conditions of 1000W/m2 solar irradiance and  $25^{\circ}C$ . Output will vary throughout the year depending upon prevailing irradiation levels. For estimated daily outputs at continuous pumping multiply the indicated output at the duty point by the daily irradiation given in Graph 1. For indicative purposes factors of 1.1 can be applied for hot arid areas and 0.9 for temperate high altitude areas in the Tropics. Output will vary throughout the day as a proportion of the estimated hourly irradiation as shown in Graph 2.

#### **OPERATING CONDITIONS**

Pumped Liquid: Thin, clean, chemically non-aggressive liquids with a sand content of less than 0.1%

Maximum Liquid Temperature: 0-35°C

Controller Ambient Temperature: -20°C to +60°C

Max Immersion Depth: 70m

Minimum Borehole Diameter: 125mm

#### **PUMP DATA**

Model	Туре	Power						Dimensions (mm)				
			Rated	Max	Recommended	D&S Rated Range	PV Configration	Dilliens		,,,,,,,		Weight
		kW	Motor Voltage (V)	Input Voltage (V)	MPP Voltage (V)			Α	В	С	Outlet	(kg)
SUNFLO-X 200H1	Helical Rotor	0.2	24	60	30-50	6m³/day at 30m Head	1x350Wx1String	365	170	195	3/4"	6
SUNFLO-X 500H1.6	Helical Rotor	0.5	48	100	60-80	10m³/day at 40m Head	2x350Wx1String	375	180	173		7
SUNFLO-X 600C2	Centrifugal	0.6	48	100	60-18	12m³ /day at 30m Head		500		320	11/4"	7
SUNFLO-X 1100C3	Centrifugal	1.1	110	200		+0111 1 1Cuu	4x350Wx1String	630	200	430		8
SUNFLO-X 1500C3	Centrifugal	1.5	110	200	120-160	20m³ /day at 60m Head	6x350Wx2Strings	690		490		10
SUNFLO-X 1500C8	Centrifugal	1.5	110	200	120-160	50m³/day at 25m Head	6x350Wx2Strings	550	230	320	2"	10

